

## **ABSTRACT**

An apparatus and method for a production planning system using a process of adaptive learning is disclosed. A production planning system receives production objects wherein each production object has at least one attribute. In one embodiment, the  
5 production objects include information relating to product to be manufactured. After receipt of production objects, multiple preference scores according to the attributes of the production objects are calculated. In one embodiment, each preference score represents desirability of transition from manufacturing a first object to a second object. The system subsequently identifies a suggested production plan which includes a sequence order of  
10 two or more objects in response to the preference scores. In one embodiment, the planning preferences are updated or modified by an adaptive learning system in response to adjustments of the suggested production plant by a planner.